



1632

PATENT
ATTORNEY DOCKET NO. 50154/004002

Certificate of Mailing: Date of Deposit: 12/18/03

I hereby certify under 37 C.F.R. § 1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Christine M. Citro
Printed name of person mailing correspondence


Signature of person mailing correspondence

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Jeffrey A. Hubbell et al.

Art Unit: 1632

Serial No.: 10/047,404

Examiner: Not yet assigned

Filed: October 19, 2001

Customer No.: 21559

Title: BLOCK COPOLYMERS FOR MULTIFUNCTIONAL SELF-ASSEMBLED SYSTEMS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Applicants submit the references listed on the attached form PTO-1449, copies of which are enclosed.

Submission of this statement is not a representation that a search has been made, nor is information included in this statement an admission that the information is material to patentability.

Applicants wish to make the following co-pending applications of record in this case: U.S.S.N. 10/102,247, filed March 20, 2002 and U.S.S.N. 10/297,229, which has a § 371 date of March 24, 2003.

This statement is being filed before the receipt of a first Office action on the merits.

If there are any charges, or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

Date: December 8, 2003


Kristina Bleker-Brady, Ph.D.
Reg. No. 39,109

Clark & Elbing LLP
101 Federal Street
Boston, MA 02110
Telephone: 617-428-0200
Facsimile: 617-428-7045



SUBSTITUTE FORM PTO-1449 (MODIFIED)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	Attorney Docket No. 50154/004002
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Serial No. 10/047,404
		Applicant Hubbell et al.
		Filing Date October 19, 2001
		Group 1632
		IDS Filed December 8, 2003
(37 C.F.R. § 1.98(b))		

U.S. PATENTS						
Examiner's Initials	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date (If Appropriate)
	5,268,305	12/07/93	Ribi et al.			
	5,294,690	3/15/94	Iguchi et al.			
	5,330,911	7/19/94	Hubbell et al.			
	5,410,016	4/25/95	Hubbell et al.			
	5,427,915	6/27/95	Ribi et al.			
	5,446,090	8/29/95	Harris			
	5,529,914	6/25/96	Hubbell et al.			
	5,567,422	10/22/96	Greenwald			
	5,573,934	11/12/96	Hubbell et al.			
	5,575,815	11/19/96	Slepian et al.			
	5,612,390	3/18/97	Iguchi, et al.			
	5,635,207	6/3/97	Grinstaff et al.			
	5,648,506	7/15/97	Desai et al.			
	5,752,974	5/19/98	Rhee et al.			
	5,801,033	9/1/98	Hubbell et al.			
	5,817,840	10/6/98	Nicolaou et al.			
	5,852,182	12/22/98	Cook et al.			
	5,858,746	1/12/99	Hubbell et al.			
	5,874,500	2/23/99	Rhee et al.			
	5,880,131	3/9/99	Greenwald et al.			
	5,897,955	4/27/99	Drumheller			

EXAMINER	DATE CONSIDERED
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.	



Sheet 2 of 4

U.S. TRADESMAN'S INSTITUTE FORM PTO-1449 (MODIFIED)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		Attorney Docket No.	50154/004002
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Serial No.	10/047,404	Applicant	Hubbell et al.
(37 C.F.R. § 1.98(b))		Filing Date	October 19, 2001	Group	1632
		IDS Filed	December 8, 2003		

	5,932,462	8/3/99	Harris et al.			
	5,945,457	8/31/99	Plate, et al.			
	5,965,588	10/12/99	Vasquez et al.			
	2003-0044468	3/6/2003	Cellesi et al.			

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION						
Examiner's Initials	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation (Yes/No)
	WO 95/13312	18.05.95	WIPO			
	WO 97/22371	26.06.97	WIPO			
	WO 99/22770	14.05.99	WIPO			
	WO 99/34833	15.7.99	WIPO			
	WO 99/14259	25.3.99	WIPO			
	WO 00/09087	24.2.00	WIPO			

OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)	
	Baker, "Controlled Release of Biologically Active Agents," Bruck, ed., p. 84-131 John Wiley and Sons, New York (1987).
	Ballini et al., "Amberlyst A-27, and Efficient Heterogeneous Catalyst for the Michael Reaction of Nitroalkanes with β -Substituted Alkene Acceptors," J. Org. Chem. 61:3209-3211 (1996).
	Boyland et al., "Enzymes Catalysing Conjugations of Glutathione with Alpha-beta-unsaturated Carbonyl Compounds," Biochem. J. 109:651-661 (1968).
	Chasseaud, "Distribution of Enzymes that Catalyse Reactions of Glutathione with Alpha beta-unsaturated Compounds," Biochem. J. 131:765-769 (1973).
	Deutsch et al., "Synthesis of Congeners and Prodrugs. 3. Water-Soluble Prodrugs of Taxol with Potent Antitumor Activity," Journal of Medicinal Chemistry 32:788-792 (1989).
	Dumitriu et al., "Polymeric Drug Carriers," In Polymeric Biomaterials, Dumitriu, ed., p. 435-449 and 466-724, Marcel Dekker, New York (1994).
	Duncan et al., "Soluble Synthetic Polymers as Potential Drug Carriers," Adv. In Polym. Sci. 57:51-101 (1984).

EXAMINER	DATE CONSIDERED
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.	



SUBSTITUTE FORM PTO-1449 (MODIFIED)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Attorney Docket No.	50154/004002
(37 C.F.R. § 1.98(b))		Serial No.	10/047,404
		Applicant	Hubbell et al.
		Filing Date	October 19, 2001
		Group	1632
		IDS Filed	December 8, 2003

	Eisele et al., "Kinetics of Photocrosslinking Reactions of a DCPA/EA Matrix in the Presence of Thiols and Acrylates," <i>J. Polym. Sci., Polym. Chem. Ed.</i> 35:2333-2345 (1997).
	Fan et al., "Molecular recognition and catalysis: incorporation of an 'oxyanion hole' into a synthetic receptor," <i>New J. Chem.</i> 21(1):81-85 (1997).
	Friedman et al., "Relative Nucleophilic Reactivities of Amino Groups and Mercaptide Ions in Addition Reactions with α,β -Unsaturated Compounds," <i>J. Am. Chem. Soc.</i> 87(16):3672-3682 (1965).
	Greenwald et al., "Drug Delivery Systems: Water Soluble Taxol-2'-Poly(ethylene glycol) Ester Prodrugs-Design and in Vivo Effectiveness," <i>J. Med. Chem.</i> 39:424-431 (1996).
	Ghandehari et al., "In Vitro Degradation of pH-sensitive Hydrogels Containing Aromatic Azo Bonds," <i>Biomaterials</i> 18:861-872 (1997).
	Hern et al., "Incorporation of adhesion peptides into non-adhesive hydrogels useful for tissue resurfacing," <i>J. Biomed. Mater. Res.</i> 39:266-276 (1998).
	Hirai et al., "pH-induced Structure Change of Poly (vinyl alcohol) Hydrogel Crosslinked with Poly (acrylic acid)," <i>Angewandte Makromolekulare Chemie</i> 240:213-219 (1996).
	Ishihara et al., "Tris(pentafluorophenyl) boron as an Efficient, Air Stable, and Water Tolerant Lewis Acid Catalyst," <i>Bull. Chem. Soc. Jpn.</i> 68:1721-1730 (1995).
	Kawai et al., "New Application of Solid Acid to Carbon-Carbon Bond Formation Reactions: Clay Montmorillonite-Catalyzed Aldol Reactions of Silyl Enol Ethers with Aldehydes and Acetals," <i>Bull. Chem. Soc. Jpn.</i> 61:1237-1245 (1988).
	Kito et al., "Biocompatible Coatings for Luminal and Outer Surfaces of Small-caliber Artificial Grafts," <i>Journal of Biomedical Materials Research</i> 30:321-330 (1996).
	Lau et al., "Conjugation of Doxorubicin to Monoclonal Anti-carcinoembryonic Antigen Antibody via Novel Thiol-directed Cross-linking Reagents," <i>Bioorganic & Medicinal Chemistry</i> 3:1299-1304 (1995).
	Lau et al., "Novel Doxorubicin-Monoclonal Anti-carcinoembryonic Antigen Antibody Immunoconjugate Activity in vitro," <i>Bioorganic & Medicinal Chemistry</i> 3:1305-1312 (1995).
	Mathur et al., "Methods for Synthesis of Hydrogel Networks: A Review," <i>Journal of Macromolecular Science-Reviews in Macromolecular Chemistry and Physics</i> C36(2):405-430 (1996).
	Moghaddam et al., "Molecular Design of 3-Dimensional Artificial Extracellular-matrix: Photosensitive Polymers Containing Cell Adhesive Peptide," <i>Journal of Polymer Science: Part A: Polymer Chemistry</i> 31:1589-1597 (1993).
	Morpurgo et al., "Preparation and Characterization of Poly(ethylene glycol) Vinyl Sulfone," <i>Bioconjugate Chem.</i> 7:363-368 (1996).
	Pato et al., "Polymers containing enzymatically degradable bonds, 9 ^a) Chymotrypsin catalyzed hydrolysis of a p-nitroanilide drug model, bound via oligopeptides onto poly(vinylpyrrolidone-co-maleic anhydride)," <i>Makromol. Chem.</i> 185:231-237 (1984).
	Pathak et al., "Rapid Photopolymerization of Immunoprotective Gels in Contact with Cells and Tissue," <i>Journal of the American Chem. Society</i> 114:8311-8312 (1992).

EXAMINER	DATE CONSIDERED
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.	



SUBSTITUTE FORM PTO-1449 (MODIFIED)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	Attorney Docket No. 50154/004002
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Serial No. 10/047,404
		Applicant Hubbell et al.
		Filing Date October 19, 2001
		Group 1632
		IDS Filed December 8, 2003
(37 C.F.R. § 1.98(b))		

	Petka et al., "Reversible Hydrogels from Self-Assembling Artificial Proteins," <i>Science</i> 281:389-392 (1998).
	Pitt et al., "Controlled Drug Delivery," In <i>Biodegradation of Polymers, Basic Concepts</i> , Volume 1, p. 53-80, CRC Press, Boca Raton, Florida (1983).
	Romanowska et al., "Michael Additions for Syntheses of Neoglycoproteins," <i>Methods in Enzymol.</i> 242:90-101 (1994).
	Sawhney et al., "Bioerodible Hydrogels Based on Photopolymerized Poly(ethylene glycol)-co-poly(α -hydroxy acid) Diacrylate Macromers," <i>Macromolecules</i> 26:581-587 (1993).
	Tanaka et al., "Michael-type Addition of Illudin S, a Toxic Substance from <i>Lampteromyces japonicus</i> , with Cysteine and Cysteine-containing Peptides In Vitro," <i>Chem. Pharm. Bull.</i> 44:273-279 (1996).
	West et al., "Comparison of Covalently and Physically Cross-linked Polyethylene Glycol-based Hydrogels for the Prevention of Postoperative Adhesions in a Rat Model," <i>Biomaterials</i> 16:1153-1156 (1995).
	Wright et al., <i>The Chemistry and Pharmacology of Taxol and Its Derivatives</i> , Farina, ed., p. 110-130 and 165-300, Elsevier, New York (1995).
	Zalipsky et al., "Attachment of Drugs to Polyethylene Glycols," <i>Eur. Polym. J.</i> 19:1177-1183 (1983).
	Zhao et al., "Novel Degradable PEG Esters for Drug Delivery: Synthesis and Characterization," <i>Polymer Reprints</i> 38:526-527 (1997).

EXAMINER	DATE CONSIDERED
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.	